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ABSTRACT

This document is intended to assist members of Southern Regional Education Board (SREB) technical assistance teams who are making site visits for the purpose of helping high school leaders and teachers identify the changes needed to achieve the High Schools That Work goal of improved student achievement through blending high-level academic and career and technical education (CTE). The following are among the topics discussed: (1) the purpose of technical assistance visits; (2) tips for being a successful team member; (3) preparing for a technical assistance visit; (4) a sample schedule/agenda for the visiting team; (5) the technical assistance visit; (6) classroom observations and interviews; (7) organizing questions and evidence for outstanding practices; (8) the overriding challenge of closing achievement, opportunity, attitude and expectation, and possibility gaps; (9) organizing questions for challenges; and (10) the exit report. Appendixes constituting approximately 60% of this document contain the following items: team assignments for classroom observations; a team member observation schedule; the SREB classroom notes form; classroom practices; tips for effective interviews; the interview schedule; forms for interviews with students, academic teachers, CTE teachers, counselors, school administrators, system leaders, business/industry representatives, and parents; evidence worksheets for the technical assistance team; grade 12 reading, mathematics, and science proficiency levels; and a glossary. (MN)

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HIGH SCHOOLS THAT WORK

SREB

Technical Assistance Visit Guide for Team Members

Improving the reading, mathematics and science competencies of career/technical students

2003-2004

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High Schools That Work Goals

- Raise the mathematics, science, communication, problem-solving and technical achievement of more students to the national average and above.
- Blend the essential content of traditional college-preparatory studies — mathematics, science and language arts — with quality career/technical studies by creating conditions that support school leaders, teachers and counselors in carrying out key practices.
- Advance state and local policies and leadership initiatives necessary to sustain a continuous school-improvement effort for both academic and career/technical studies.

High Schools That Work Key Conditions

- An organizational structure and process for ensuring continuous involvement by school administrators and teachers in planning strategies to achieve the key practices — Each school needs a clear mission statement to prepare high school students for success in postsecondary education and the workplace.
- Leadership from the district and the school to improve curricula, instruction and student achievement — Each school site should have a leadership team consisting of the principal, the assistant principal and teacher leaders who support, encourage and actively participate with the faculty in implementing the key practices.
- A commitment from the school board to support the school in replacing the general track — Schools should offer a more demanding academic core and either an academic, a career/technical or a blended concentration.
- A system superintendent and school board members who support school administrators and teachers in carrying out the key practices — This commitment includes financial support for instructional materials, time for teachers to meet and plan together, and six to eight days per year of staff development on using the key practices to improve student learning.
- A school superintendent and a school board that will allow the high school to adopt a flexible schedule that enables students to earn more credits — The block schedule that *HSTW* recommends for challenged schools makes it possible for students to earn 32 credits in four years.

High Schools That Work Key Practices

- **High expectations** - setting higher expectations and getting more students to meet them
- **Career/technical studies** - increasing access to intellectually challenging career/technical studies, with a major emphasis on using high-level mathematics, science, language arts and problem-solving skills in the modern workplace and in preparation for continued learning
- **Academic studies** - increasing access to academic studies that teach the essential concepts from the college-preparatory curriculum by encouraging students to use academic content and skills to address real-world projects and problems
- **Program of study** - having students complete a challenging program of study with an upgraded academic core and a major
- **Work-based learning** - giving students and their parents the choice of a system that integrates school-based and work-based learning that spans high school and postsecondary studies and that is planned by educators, employers and employees
- **Teachers working together** - having an organization, structure and schedule giving academic and career/technical teachers the time to plan and deliver integrated instruction aimed at teaching high-level academic and technical content
- **Students actively engaged** - getting every student involved in rigorous and challenging learning
- **Guidance** - involving each student and his or her parents in a guidance and advisement system that ensures the completion of an accelerated program of study with an in-depth academic or career/technical major
- **Extra help** - providing a structured system of extra help to enable students who may lack adequate preparation to complete an accelerated program of study that includes high-level academic and technical content
- **Keeping score** - using student assessment and program evaluation data to improve continuously the school climate, organization, management, curricula and instruction to advance student learning and to recognize students who meet both curriculum and performance goals

Purpose of Technical Assistance Visits

The purpose of technical assistance (TA) visits is to help school leaders and teachers identify changes needed to achieve the *High Schools That Work* (*HSTW*) goal: improved student achievement through blending high-level academic and career/technical studies. TA teams help sites improve the quality of learning for all students by working with teachers, counselors and administrators to:

- raise expectations for student performance;
- revise what students are taught;
- change how students are taught;
- change how the school relates to students;
- change how teachers relate to each other;
- change how the school relates to parents, middle schools, employers and postsecondary schools; and
- collect and use data for continued school improvement.

There are three types of team visits:

- visits led by an SREB representative (including Urban and Comprehensive School Reform [CSR] sites);
- visits led by an *HSTW* state director, state coordinator or representative from another consortium state; and
- follow-up visits led by an SREB representative to schools that have had a three-day TA visit within the last three years.

What is *High Schools That Work*?

- *HSTW* is a consortium of states working with the Southern Regional Education Board.
- *HSTW* is a network of more than 1,100 high schools in 27 states.
- *HSTW* is an improvement effort that links improved career/technical studies with whole-school improvement. It is a framework for total school improvement and has been nationally recognized as such. *HSTW* focuses on the 60 percent or more of students not being challenged or enrolled in rigorous courses. The initiative works to improve the **entire** school, not just career/technical studies.
- *HSTW* goals, key conditions and key practices are outlined on pages 1-2 of this guide.

Perhaps the most important component of the TA visit is the team member. If possible, team members should acquaint themselves with information provided by the school prior to the visit. During the visit, team members observe classes and take notes related to specific practices; interview administrators, teachers, counselors and students; and help develop the TA report for the site.

Tips for Being a Successful Team Member

1. Think of yourself as a "helper." You provide technical assistance to a site that is taking great risks to change school and classroom practices. Celebrate the positive!
2. Be analytical. Look beneath the surface to ensure you are giving an honest appraisal of where the school is now and where it needs to be. Do not make assumptions or inferences; just collect evidence.
3. Take copious notes. Do not rely on your memory, no matter how good it is. You will give the team leader your notes at the end of the visit, so be sure they are clear. Keep your notes confidential.
4. Find data to support your decisions (*HSTW* Assessment, SAT/ACT scores, state tests, dropout rate, number of students who go on to postsecondary studies, number of students who must take remedial courses, etc.).
5. Ask pointed questions in interviews. Be persistent; if a question is not answered to your satisfaction, ask it in a different way. Talk to teachers and students in the halls as well as during interviews.
6. Read and study materials provided by the school.
7. Visit all classes assigned to you.
8. Talk in specifics — not generalities. Remember that each outstanding practice and each challenge must have a strong, clear rationale.
9. Base your questions and investigations on the key conditions and practices.
10. Always keep in mind that the purpose of the visit is to provide technical assistance to the site — not to monitor or evaluate.

Step I: Preparing for a Technical Assistance Visit

Before the Visit

Team members should study all information from the site, including the most recent *HSTW*, state and school data. The site should send this to team members at least two weeks prior to the visit along with the following:

- a detailed agenda (sample on page 5) and a class schedule that lists names of all teachers and locations of all classes, including classes away from the main building; (Visiting team members will want to be able to visit any class or teacher to get a clear picture of the range of opportunities for all students.)
- the site's *HSTW* annual report, updated to the time of the site visit;
- the most recent *HSTW* assessment executive summary;
- the most recent *HSTW* secondary teacher survey report;
- the school site action plan; and
- additional materials that may be helpful to the team during the visit.

Sample Schedule/Agenda for the Visiting Team

SCHOOL DATE

First Day (Day of Week)

4 - 6 p.m. Technical assistance team orientation for two hours with the team leader **[Location]**

6 - 7 p.m. The school's *HSTW* advisory/implementation/site team informs the technical assistance team about the site's accomplishments, next action steps and major challenges. **[Location]**

Second Day (Day of Week)

7:30 a.m. Team organizational meeting **[Location]**

7:45 a.m. Classroom observations start when students begin classes and run until lunchtime.

Lunch **[Location]**

1 - 3 p.m. Other classroom visits as necessary

1 p.m. Selected members of the technical assistance team interview the following:

- a group of 10 to 12 career/technical completers, chosen at random; **[Location]**
- a group of 10 to 12 senior academic majors, chosen at random; **[Location]**
- the school principal; **[Location]** and
- the director of career/technical education/*HSTW* site coordinator. **[Location]**

2 p.m. Selected members of the technical assistance team interview the following:

- a group of five to six academic teachers; **[Location]**
- a group of five to six career/technical teachers; **[Location]**
- the superintendent or assistant superintendent for instruction; **[Location]**
- one or more local school board members, if possible; **[Location]**
- guidance counselors (interviewed by two team members); **[Location]** and
- several parents. **[Location]**

3 - 8 p.m. (or later) The visiting team meets to discuss findings and prepare the draft report.

Third Day (Day of Week)

7:30 a.m. The visiting team meets to discuss the final report. **[Location]**

9 a.m. An exit conference is held with the superintendent and site leaders. **[Allow approximately one hour.]**

Step II: The Technical Assistance Visit

During the Visit — Day One

Team Orientation

The first step toward having a successful visit and preparing a helpful report is a briefing by the team leader, which usually lasts two hours. Team members should pay particular attention to their assignments: visiting classes; interviewing students, administrators, teachers and counselors; and gathering data for preparing the report.

During the briefing, the team leader will give an overview of *HSTW* and assign team members classes to observe, groups to interview, key questions to ask, and specific information to find in reports and data, including:

- dropout data for the last five years;
- attendance rates for the last five years;
- ACT and SAT scores and the percentages of students taking these exams over the last three years;
- statewide assessment data for the last three years;
- high school graduation policies; and
- additional information that may emerge from reviewing background materials.

After the orientation, team members will have time to review materials individually and to plan observations and interview schedules for the next day. This is a good time to ask the team leader any questions about the process and to fill out the personal schedule on page 20.

Site Orientation

At approximately 6 p.m. (according to the school's schedule), the TA team will meet for 30 minutes to one hour with site leaders, including the principal, career/technical director, key teacher leaders and others invited by the site. This is a good time to educate the entire faculty about *HSTW* and to stress the importance of the TA visit. Site representatives will answer these questions in their presentation to the team:

- What are the school's outstanding practices? What has the school done to implement the 10 key practices?
- How was it done and what are the results, especially in terms of improved student learning, attendance, postsecondary attendance, school completion rates, etc.?
- What does the school intend to do next and what are the next steps?
- What are the major challenges to improving student achievement?

Step III: Classroom Observations and Interviews

During the Visit — Day Two

Morning Briefing

The team will meet at 7:30 a.m. (about 30 minutes before classes begin) to review schedules and plans. Team members will spend 10-15 minutes in each classroom and will need access to all classes. The site coordinator should have encouraged teachers not to test on the day team members visit classes.

Classroom Visits

The basic purpose of the classroom visit is to find out:

- the extent to which students are challenged;
- the extent to which students are engaged in learning;
- the extent of teacher preparation;
- the extent to which the classroom is productively focused and managed; and
- the extent of differences between high- and low-achieving classes.

The team leader will review assignments and forms for team members to use in making classroom visits and participating in scheduled interviews. Team members are responsible for getting detailed information about teaching practices, student participation and administrative support. Team members are encouraged to record specific examples of high-quality instructional activities that motivate students and engage them in challenging lessons. Informal conversations with teachers and students before and after classroom observations also provide excellent information.

Team members should spend 15 to 20 minutes in each of the classes assigned by the team leader. Some members will visit a combination of English and career/technical classes, science and career/technical classes, mathematics and career/technical classes, etc. If time remains after all visits are completed, go to other classes to see as much as possible or return to classes already visited. Each team member should visit both lower-level and higher-level classes (e.g. regular English, college-prep English and AP English). Some team members will observe a sample of career/technical, mathematics, language arts and science classes to get an overall view of what and how students are being taught in academic and career/technical courses.

Each team member should use the Classroom Notes Form (Appendix III) as a guide to get an idea of what is happening in each classroom. These forms are **not** teacher evaluation instruments. Document outstanding instructional approaches in which the teacher was well prepared or caused students to think and reflect. Take detailed notes in the space provided on the form

Evidence Worksheets

The Evidence Worksheets (Appendix VIII) help team members assess how effective the site has been in implementing the key practices. Each team member will be assigned two of the key practices and a list of indicators showing whether the practices are in place. It is important to remember that every site is at a different stage in the implementation of the *HSTW* key practices. Worksheets should not be considered as evaluative criteria; rather, they help team members focus on whether or not indicators are in place or on the way to being in place. Remember that some sites work on all 10 key practices at the same time while others choose to focus on individual practices.

Interviews — Administrators, Teachers, Students, Counselors and the *HSTW* Coordinator

Each team member will interview at least one group at the site. There are specific questions in Appendix VII for interviews with academic teachers, career/technical teachers, guidance counselors, the principal, the superintendent and the *HSTW* coordinator. Team members may also interview teachers during their planning periods. Be sure to appoint a note taker during the interviews.

The organizing questions on pages 8 - 17 will be used during the briefing session to determine the site's outstanding practices and challenges. Team members should become familiar with this information prior to the visit. Around 3 p.m., the team will gather to discuss findings and to determine the outstanding practices, next steps and challenges for the report. The team leader will allow about 30 minutes for team members to collect notes and discuss findings.

Organizing Questions and Evidence for Outstanding Practices

Team members should use the following checklist for each organizing question to ensure that all evidence and supporting data have been gathered and reviewed.

1 Does the school have high expectations and provide extra help? If this is a first visit, what policies and school/classroom practices are in place for sending a message of higher expectations and for providing students with the extra help and time they need to meet those higher standards?

Supporting evidence:

- ☐ Increase in graduation requirements, particularly if the school has gone to a block schedule (Get a copy of the graduation requirements and explain them in the report.)
- ☐ Increase in attendance rate
- ☐ Decrease in dropout rate
- ☐ Increase in *HSTW* and state assessment scores, SAT, ACT, etc. (Illustrate using a chart in the report.)
- ☐ Increase in career/technical achievement, if available
- ☐ Decrease or elimination of low-level courses and multiple levels within a grade
- ☐ Decrease in discipline referrals and tardies
- ☐ Ways extra help is being provided (Describe in detail.)
- ☐ Other evidence that signals high expectations — requiring students to complete a senior project, amount of reading required, expecting all students to complete the *HSTW*-recommended curriculum, etc.

From the *HSTW* assessment report:

- ☐ Students report that teachers often indicate the amount and quality of work necessary to earn an A or a B.
- ☐ Students report that they do one or more hours of homework each night across all subjects.
- ☐ Students report that they often revise their essays and other written work several times to improve quality.
- ☐ Students report that they are often required to redo work until it meets standards.
- ☐ Students report that they are required to complete a senior project and make a presentation about it.
- ☐ Students report that they read 25 or more books (or their equivalent) across all classes.
- ☐ Students report that they read two or more hours outside of class each week.
- ☐ Students report that they complete a short writing assignment in all classes weekly.

Extra help for all students:

- ☐ Students report that they are often able to get extra help from their teachers without much difficulty.
- ☐ Students report that their teachers give them extra help in mathematics a few times a week.
- ☐ Students report that their teachers give them extra help in reading a few times a week.
- ☐ Students report that teachers often set high expectations and are willing to help them meet them.

Extra-help and extra-time policies:

- ☐ Required extra help
- ☐ Before- and after-school sessions
- ☐ Extra help provided during the school day
- ☐ Summer school
- ☐ A, B, C and "not yet" grading policy
- ☐ Mastery learning

2 Has the school revised academic and career/technical courses, and does it require all students to complete an upgraded academic core and a concentration? What content revisions has the school made in both academic and career/technical classes? What are students taught and to what standards? Which academic and career/technical courses are taught to the high standards necessary to achieve the *HSTW* goals? Which courses are not? (This may lead to a challenge.)

Schoolwide changes that have been made:

- ☐ Eliminating low-level courses
- ☐ The percentage of courses taught to the college-preparatory level
- ☐ New courses that have been added, such as dual credit courses, Advanced Placement courses, and any new career/technical courses or programs
- ☐ Whether or not career/technical programs lead to a certification and if so, which ones
- ☐ The percentage of students receiving a career/technical certification
- ☐ The number of articulation agreements (Get a list of agreements by program area.)
- ☐ Percentage of students who receive the *HSTW* Award of Educational Achievement
- ☐ Distance-learning opportunities available and the number of students enrolled

From the *HSTW* assessment report:

The school requires students to complete:

- ☐ Four credits in college-preparatory English/language arts courses;
- ☐ Three mathematics credits (four at CSR and urban sites) with at least two credits equal to Algebra I, geometry or Algebra II; (Mathematics is recommended in the senior year.)
- ☐ Three science credits, including two credits equal to chemistry, physics, applied physics and lab-based college-preparatory biology;
- ☐ Four credits in a planned sequence of career/technical courses or four credits in an academic, career/technical or blended concentration; and
- ☐ A computer technology course aimed at teaching students database management, word processing, PowerPoint, the Internet and e-mail as tools for project-based learning.

Career/technical studies:

- ☐ Students report having to read a career-related article twice a month and demonstrate understanding of the content.
- ☐ Students report having to do two hours of mathematics homework weekly on a career-related mathematics problem.
- ☐ Students report having to read technical manuals at least weekly to complete career/technical assignments.
- ☐ Students report having to write to complete career/technical assignments at least weekly.
- ☐ Students report being required by their teachers to keep a folder/portfolio of a list of books or articles read, reports prepared and projects completed.
- ☐ Students report having to use a database or spreadsheet to complete an assignment or project at least once a semester.
- ☐ Students report having to meet standards on a written exam to pass a course.
- ☐ Students report having to prepare a written report or complete a research paper at least once a semester.
- ☐ Students are required by school policy to take a technical literacy exam developed by state or industry leaders in a career/technical field of study with scores counting as a portion of the student's final course grade.
- ☐ Students receive on-the-job training by rotating through several departments or jobs.
- ☐ Students receive on-the-job training by observing veteran workers performing certain jobs.

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3 Does the school engage students in challenging assignments? What are the classroom practices and assignments that engage students and get them to achieve at the proficient level? This outstanding practice should include specific examples recorded from classroom observations that illustrate active student engagement.

From the *HSTW* assessment report and benchmark indicators:

Language Arts:

- ☐ Students report having to read 10 or more books (or their equivalent) each year for language arts courses.
- ☐ Students report having to complete at least one short writing assignment for a grade each week.
- ☐ Students report having to draft, edit and rewrite writing assignments before receiving a grade.
- ☐ Students report having to complete a written research paper on a subject of their choice at least once a year.

Mathematics:

- ☐ Students report having to use a graphing calculator to complete mathematics assignments at least weekly.
- ☐ Students report having to complete a written report on a major mathematics project at least once a semester.
- ☐ Students report having to work in groups to brainstorm how to solve a mathematics problem at least once or twice a month.
- ☐ Students report having to solve problems other than those found in the textbook or on a drill sheet.

Science:

- ☐ Students report having to use science equipment to do science activities in a laboratory with sinks and tables at least twice a month.
- ☐ Students report having to read an assigned book (other than a textbook) or article dealing with science at least monthly.
- ☐ Students report having to complete research projects in science at least once a semester that involve designing an experiment and preparing an oral report of the results.

Integration of academic and career/technical content:

- ☐ Students report having one or two assignments for which a grade is given in both academic and career/technical classes:
  - English and career/technical
  - Mathematics and career/technical
  - Science and career/technical

Engaging strategies for all teachers:

- ☐ Teachers use reading and writing strategies across the curriculum.
- ☐ Teachers use open-ended problems for which there is no obvious method of solution.
- ☐ Teachers require students to work in cooperative groups to deepen understanding of content.
- ☐ Teachers require students to work on a major extended project that lasts a week or more at least once a semester.
- ☐ Teachers ask students to participate in class discussion.
- ☐ Teachers require students to use word processing to complete an assignment or project.
- ☐ Teachers use authentic assessment strategies such as portfolios, open-response questions, performance events and projects.
- ☐ Teachers work with other teachers to examine students' work and determine if it meets the standards expected of high school students.
- ☐ Teachers strongly agree that they meet monthly or more often as part of a team of academic and career/technical teachers to plan joint instructional activities.

4 Does the school have a guidance and advisement system that actively involves parents and teachers? What is the school doing to make sure each student is partnered with an adult who is responsible for helping the student and his/her parents plan the high school program of study?

From the *HSTW* assessment report and other supporting evidence:

- ☐ Does the school have an advisement program? Does it meet regularly? Have teachers received staff development?
- ☐ List specific ways parents are being involved.
- ☐ Find the percentage of students who have a four-year plan that is started in the eighth grade.
- ☐ Find the percentage of students whose four-year plan is reviewed annually.
- ☐ Students report that they received the most help in planning a high school program of study by the end of ninth grade.
- ☐ Students report that they participated in a parent-teacher-student conference to plan a high school program of study.
- ☐ Students report having an adult mentor at the school for all four years of high school.
- ☐ Students report that they received information about postsecondary education.

5 Do teachers have the support of system and school leaders? How do system and school leaders support and involve the faculty, business community and parents in achieving the *HSTW* goals? (Give specific examples.)

School leadership:

- ☐ Study teams have been organized to address individual components of the school improvement plan.
- ☐ The principal:
  - keeps everyone informed and focused on student achievement;
  - sets high expectations for all students to learn higher-level content;
  - recognizes and encourages good instructional practices that motivate students and increase their achievement;
  - uses data to initiate and continue improvement in school and classroom practices and student achievement;
  - makes parents partners in their students' education and creates a structure for parent and educator collaboration;
  - understands the change process and has the leadership and facilitation skills to manage it effectively;
  - understands how adults learn and knows how to advance meaningful change through quality, sustained professional development that benefits students;
  - uses and organizes time in innovative ways to meet the goals and objectives of school improvement;
  - acquires and uses resources wisely;
  - obtains support from the central office and from community and parent leaders for the school improvement agenda; and
  - seeks out and learns from colleagues who are abreast of new research and proven practices.

From the *HSTW* assessment report:

- ☐ Staff members strongly agree that each month the principal stresses that all students should be taught to the same high standards.
- ☐ Staff members strongly agree that teachers and school administrators work as a team to improve student achievement.
- ☐ Teachers say the school offers a teacher-mentoring or induction program for new teachers.
- ☐ Staff members strongly agree that, to some extent, staff development programs are sustained over time, with ample follow-up activities.
- ☐ Staff members believe a great deal that they are expected to reflect on what they learn in staff development programs and apply it in the classroom.
- ☐ Staff members strongly agree that the principal uses data frequently to evaluate academic and career/technical programs.
- ☐ Teachers report that the principal consults with staff members before making decisions that affect them.
- ☐ Teachers report that the principal talks with them to make sure the content in their classes is within the established scope and sequence of the curriculum.
- ☐ Teachers strongly agree that the staff continually evaluates the school's programs and activities.
- ☐ Staff members strongly agree that the principal frequently encourages teachers to experiment with their instructional strategies.
- ☐ The school improvement plan is revised at least once a year to reflect changing priorities.

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Teachers report having more than 40 hours of staff development during the last three years on the following strategies:

- ☐ raising expectations for student achievement;
- ☐ conducting additional study and greater depth in content areas;
- ☐ using reading and writing for learning in the content areas and across the curriculum;
- ☐ teaching students to interact and cooperate with each other during the learning process;
- ☐ studying samples of student work to improve academic and technical skills and accelerate achievement;
- ☐ using project-based learning to deepen understanding of content;
- ☐ using performance assessments, such as presentations, writing and projects;
- ☐ having students design and conduct research investigations; and
- ☐ using applied learning strategies to teach higher-level academic content to all students.

Teachers report participating in staff development in the last three years that:

- ☐ required them to read professional literature and use professional videotapes with a study group;
- ☐ required them to do research based on their classrooms;
- ☐ required classroom observations and feedback from other educators; and
- ☐ required them to work with teachers who have been successful in getting students to master high-level content.

6 Does the school provide a structured transition system?

Middle grades/high school transition:

- ☐ Teachers report meeting with teachers from feeder middle grades or junior high schools annually to discuss expectations, content knowledge and performance standards for students entering high school.
- ☐ Teachers report having a parent-teacher-student conference to plan or review the high school program of study for every entering ninth-grader.
- ☐ Teachers report that the school is effectively implementing a summer bridge program. Existing eighth-graders are identified to receive four to six weeks of supplemental instruction.
- ☐ Teachers report having a schedule that allows double periods in reading and mathematics for students who need extra help.
- ☐ Teachers report that a caring adult is assigned to mentor each entering ninth-grader.

High school/post-high school transition:

- ☐ The school works with a postsecondary institution to give most juniors a placement exam to determine which students are not ready for postsecondary study and uses the senior year to get them ready.
- ☐ Teachers report that the school requires students performing below the state or national average on the ACT or SAT mathematics and verbal sections to take higher-level mathematics and English courses during the senior year.
- ☐ The school is decreasing the percentage of students needing to take remedial or developmental courses in reading, language arts, writing or mathematics at the postsecondary level.
- ☐ Students report taking a mathematics course during the senior year.
- ☐ Students report taking a science course during the senior year.

Next Steps

The next steps should be concise, one-sentence statements that capture exactly what the site intends to do and when. These are not suggestions from the TA team; they are actions the school plans to take to increase student achievement. Each statement should begin with an action verb.

Challenges and Questions Team Members Should Ask

Major Purposes of the Challenges

- ☐ Do the challenges as a whole provide a three- to five-year design to move the school forward?
- ☐ Do the challenges as a whole provide support for the board, the superintendent and the principal to make whole-school improvement?
- ☐ Do the challenges address total school improvement rather than a small section of the school? (e.g. only academic studies or only career/technical studies)
- ☐ Have administrators and teachers adopted structural features that are essential if the site is going to advance the *HSTW* goals? Actions that lead to school improvement include:
  - upgrading the academic core and concentration;
  - eliminating low-level and general track courses;
  - increasing graduation requirements;
  - implementing *HSTW* or similar focus teams/committees;
  - implementing alternative scheduling;
  - providing common planning time for teachers; and
  - offering a mentoring program for new teachers.
- ☐ To what extent has the school put into place a set of requirements and practices to ensure that career-bound students are taught an upgraded academic core that is equal in content and standards to what is taught in the college-preparatory English/language arts, mathematics and science curricula?
- ☐ To what extent has the school eliminated the general track?

Overriding Challenge - Closing the Gaps

As you review the data, it is important to look at the achievement of all students as well as all subgroups within the school's population. You may conclude that gaps exist — in achievement, opportunities to learn challenging academic and career/technical content, quality teaching, extra help and time, and guidance.

Achievement Gap — Achievement Outcomes Related to Standards

Does the school have the same expectations for all students? Is there a gap in achievement among the various subgroups? As you look at the *HSTW* assessment results, state assessment results and the school's status in the state, where does the school stand in meeting the goal? (The *HSTW* goal is for 85 percent of career/technical students to meet performance goals in all three areas by 2006.)

Opportunity Gap — Content Being Taught to Each Group

- Check the master schedule to see the various levels being taught.
- Get enrollment by subgroups in each level of courses offered (e.g. general/basic, college-preparatory/honors, Advanced Placement/International Baccalaureate).
- Check the school's course description guide for course descriptions. In English/language arts, it is important to check the reading requirements for each level (type and amount).
- How are students placed in classes? What data is used?
- How are students achieving in reading, mathematics and science on the *HSTW* assessment based on their course experiences?
- Who is teaching the various levels?
- Do one or two teachers have all honors/AP while others have low-level classes?
- Are first-year teachers assigned to teach all low-level classes?
- Do teachers have content majors in the areas they are teaching?

Attitude and Expectation Gap — School Climate

The achievement and opportunity gaps cannot be closed unless a climate of high expectations exists. Does the school have high and consistent expectations for all students regarding basic school policies and behavior? If not, this signals a problem with the overall school climate. Does the faculty really believe that poor and minority students can learn? Do they work with these students to help them meet standards, or are poor and minority students passed and allowed to get by because there's a belief that they cannot achieve?

Possibility Gap — Showing High-poverty, High-minority Schools What High-performing Schools Similar to Theirs Look Like

High-poverty, high minority schools need to learn how schools similar to theirs are increasing student achievement. Best practices from schools with similar demographics will help these schools close the possibility gap.

The overriding challenge will serve as the blueprint for all remaining challenges.

Organizing Questions for Challenges

1 Does the school require students to complete an academic, career or blended concentration? If the upgraded core and concentration have not been put into place, determine which part is not in place. This will become your first major challenge.

- ☐ **Task:** Define the challenge in a straightforward sentence. State that the school needs to put an upgraded academic core and a concentration in place.
- ☐ **Task:** Ensure that evidence from the database and information collected from the school is clear and justifies the challenge. Data should clearly show the gaps between what the school should be doing and what it is doing.
- ☐ **Task:** State three or four specific actions the school can take to address the challenge.

2 Has the school aligned its academic curriculum in English/language arts, mathematics and science to state and national standards?

Review the indicators and evidence pertaining to academic studies (page 9).

- ☐ **Check:** Has the school revised courses so that they are aligned to district, state and national standards?
- ☐ **Check:** Have common course syllabi been developed?
- ☐ **Check:** Have common end-of-course exams been developed?
- ☐ **Check:** Do students know what is expected of them in order to earn an A or a B?
- ☐ **Task:** State a clear challenge and justify it based on low-level courses, two or three tiers of courses, achievement scores, etc.
- ☐ **Task:** State three or four specific actions the school can take to address the challenge.

3 Is the school providing students access to a high-quality career/technical curriculum — one that has clear instructional goals at the school site and the work site? Do students have access to a variety of career/technical programs and courses to address their interests and career goals?

Review the indicators and evidence pertaining to career/technical studies (page 9).

- ☐ **Check:** Have career/technical teachers revised their curriculum for teaching challenging content in ways that require students to draw upon their academic skills to complete complex assignments?
- ☐ **Check:** Do career/technical teachers have clear goals and a detailed set of syllabi describing what students must do to meet the goals?
- ☐ **Check:** Do career/technical teachers have a demanding assessment system?
- ☐ **Check:** Are students held to high standards in career/technical classes?
- ☐ **Task:** If the answer to any of these questions is "no," state a clear, one-sentence challenge and build a justification for it using *HSTW* assessment data.
- ☐ **Task:** State three or four specific actions the school can take to address the challenge.

4 How well are students being taught in both academic and career/technical classes? Are the students being actively engaged in the learning process?

Review the indicators and evidence pertaining to engaging students (page 10).

- ☐ **Check:** To what extent are teachers using student-centered instructional strategies that engage students in challenging, complex assignments? Examples include:
  - cooperative learning
  - project-based learning
  - integration
  - reading and writing strategies
  - technology for learning
  - Socratic seminar
- ☐ **Check:** To what extent do students have to gain deep understanding of academic and technical concepts by applying them in new and creative ways?
- ☐ **Task:** Develop a clear challenge and build justification for it based on classroom observations, student interviews and *HSTW* assessment data.
- ☐ **Task:** State three or four specific actions the school can take to address the challenge.

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5 To what extent has the school developed a guidance and advisement system that results in each student having the continuity of one adviser throughout four years of high school — an adviser who really gets to know the student?

Review the indicators and evidence pertaining to guidance and advisement (page 11).

- ☐ **Check:** Has the school developed a process through which parents are directly involved in at least three critical decisions in planning students' high school programs of study?
- ☐ **Check:** To what extent has the site put into place a guidance and advisement system that ensures each student gets help each year in planning his/her program of study as related to the student's post-high school objectives?
- ☐ **Check:** To what extent are parents active partners in the planning process?
- ☐ **Check:** To what extent do all students have at least one adult who gets to know them, becomes their adviser and meets with them frequently throughout their high school years?
- ☐ **Task:** When you determine the gap between what is expected from the *HSTW* key practice on guidance and what is in place, craft a challenge.
- ☐ **Task:** State three or four specific actions the school can take to address the challenge.

6 To what extent do the board of education, the district office and the building administrators support efforts to raise expectations and to communicate to students and parents that achievement counts?

Review the indicators and evidence pertaining to administrative support (page 11).

- ☐ **Check:** Are the signals being sent by the school board, the district office, the business community and postsecondary institutions strong enough to convince students that taking higher-level courses and working harder in high school really matter?
- ☐ **Check:** What kind of support have teachers received from the district office in professional development, time for planning and other crucial factors?
- ☐ **Check:** How is the faculty involved in making the kinds of changes that need to be made?
- ☐ **Check:** Is *HSTW* or a similar committee/focus team structure in place? Are all teachers involved?
- ☐ **Check:** Have new policies been implemented by the board and administration that relate to higher expectations and changing the system? Are teachers encouraged and supported to raise standards and implement policies?
- ☐ **Check:** Is there an organizational practice through which the faculty, parents, postsecondary institutions and the business community are involved in developing the site action plan, deciding how to implement it and continually using data to revise it?
- ☐ **Check:** To what extent have faculty been involved in using data to advance the quality of student learning and to teach materials that are more complex?
- ☐ **Task:** Develop a clear challenge based on teacher, counselor and administrator interviews.
- ☐ **Task:** Justify the challenge. Build a case that there are not adequate mechanisms in place through which a continuous improvement planning process can occur. Teachers being unfamiliar with the data is evidence of a problem. If there is not an organized improvement structure through which teachers, parents and others come together frequently through an overall improvement committee and a variety of subcommittees, then there probably is not an adequate mechanism in place.
- ☐ **Task:** State three or four specific actions the school can take to address the challenge.

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7

Does the school have an effective transition system in place? A strong transition program includes prevention strategies in grades seven and eight, double doses of English and mathematics in grade nine, summer school and after-school programs in grade nine, and a high school to post-high school transition system.

Review the indicators and evidence pertaining to transition (page 12).

- ☐ **Check:** Are preventive strategies in place as early as grade seven to reduce the number of ninth-graders unprepared to do high school-level work?
- ☐ **Check:** Have eighth-graders shadowed high school students to learn what is required at the high school level?
- ☐ **Check:** Have links been developed with feeder middle grades, and have curriculum maps been developed for each grade?
- ☐ **Check:** Have readiness indicators been developed between schools to monitor what students should be learning in grades K-12?
- ☐ **Check:** Are students who are not ready to do high school work required to attend a six-week summer school program between grades eight and nine?
- ☐ **Check:** Are adequate steps being taken to reduce the flow of students into grade nine who are unprepared to do high school work, particularly in mathematics and English/language arts?
- ☐ **Check:** Are reading, writing, mathematics, study/social skills, computer skills and college/career preparation taught for six hours each day, including two hours of reading/writing and two hours of mathematics for ninth-graders who are not ready for high school work?
- ☐ **Task:** State a clear, one-sentence challenge.
- ☐ **Task:** Justify the challenge. Justifications may include:
  - high dropout rate,
  - high failure rate in ninth grade,
  - several levels of curricula,
  - percentage of students unprepared for Algebra I in grade nine, and
  - percentage of students not ready to take college-preparatory English/language arts.
- ☐ **Task:** State three or four specific actions the school can take to address the challenge.

8

Have steps been taken to strengthen the senior year?

- ☐ **Check:** Are students who perform below the state or national average on the ACT or SAT placed in two mathematics and/or English/language arts classes in the senior year?
- ☐ **Check:** Have high school and postsecondary teachers agreed on a common set of indicators for students exiting high school?
- ☐ **Check:** Has there been a reduction in the postsecondary remediation rate?
- ☐ **Check:** What percentage of seniors are enrolled in high-level mathematics and science courses?
- ☐ **Check:** What percentage of seniors are enrolled in three academic classes?
- ☐ **Check:** What percentage of seniors participate in work-based learning experiences with detailed training agreements and work that is connected to both academics and the career concentration?
- ☐ **Task:** State a concise, one-sentence challenge.
- ☐ **Task:** Justify the challenge. Justifications may include:
  - high postsecondary remediation rate,
  - low percentage of seniors enrolled in high-level mathematics,
  - early release for seniors, and
  - ACT/SAT scores below the state and national average.
- ☐ **Task:** State three or four specific actions the school can take to address the challenge.

9 Does the school have high expectations for all students? Problems associated with school climate issues such as attendance, high number of tardies, high dropout rate and discipline issues are often associated with expectations. Have teachers created a climate of high expectations? Do students arrive to class on time, ready to work and with appropriate materials? Are there different expectations for students in different class levels? If so, explain.

Review the indicators and evidence pertaining to high expectations (page 8).

- ☐ **Task:** Define the challenge in a straightforward sentence stating that the school does not have high expectations for all students.
- ☐ **Task:** Ensure that evidence from the database and information collected from the school is clear and justifies the challenge. Data should clearly show the gaps between what the school should be doing and what it is doing.
- ☐ **Task:** State three or four specific actions the school can take to address the challenge.

10 Does the school provide students with the extra help and extra time they need to meet higher standards?

Review the indicators and evidence pertaining to extra help (page 8).

- ☐ **Task:** State a concise, one-sentence challenge for providing the extra help and extra time students need.
- ☐ **Task:** Develop evidence, such as high failure rates and dropout rates, that justify the challenge.
- ☐ **Task:** State three or four specific actions the school can take to address the challenge.

Step IV: The Exit Report

Day Three

The team leader and team members will present an exit report on the morning of the third day in a meeting with the superintendent, the principal and others identified by the site. The meeting should last approximately one hour, but it may be longer, depending on questions and comments from the site.

The presentation will include the following:

- The team leader will present a draft copy of the report to the team for review.
- The team leader will present a brief history of SREB and *HSTW*. The leader will make it clear to school representatives that they have chosen the top high school reform effort in the nation and that they should be very proud of this decision.
- The team leader will highlight the outstanding practices the team observed and ask site leaders if the team missed any important practices.
- A team member or the team leader will summarize next steps the site intends to take. Again, the site should have an opportunity for input.
- The team leader will introduce and discuss each challenge. The justification for the challenge should be clear, and the leader should suggest several specific actions the site can take to address the challenge.
- The team leader will ask site leaders for additional ideas and comments. If this is an SREB visit or a visit from one state to another, the team leader will remind the site that it will receive a draft copy of the written report from SREB for review before the official report is sent to the superintendent. The team leader will also ask team members for comments.

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APPENDICES

Team Assignments for Classroom Observations

The team should visit as many classes as possible, including foreign language, art, music, health and physical education classes. At a minimum, the following classes should be visited: mathematics (all levels students take, such as Algebra I, Algebra II, geometry and trigonometry), science (earth science, biology, chemistry and physics), English (ninth through 12th-grade English), history/social science (world history, world geography, U.S. history and U.S. government), and career/technical studies (all fields). **The team leader makes assignments.**

TEAM A	MATHEMATICS CLASSES	RANDOM SAMPLE OF C/T CLASSES
TEAM B	MATHEMATICS CLASSES	RANDOM SAMPLE OF C/T CLASSES
TEAM C	MATHEMATICS CLASSES	RANDOM SAMPLE OF C/T CLASSES
TEAM D	MATHEMATICS CLASSES	RANDOM SAMPLE OF C/T CLASSES
TEAM E	MATHEMATICS CLASSES	RANDOM SAMPLE OF C/T CLASSES

Note: Members visiting academic classes should also visit a sampling of career/technical classes, and members visiting career/technical classes should also visit a sampling of academic classes. For example, mathematics team members may visit drafting, carpentry and pre-engineering classes, while English team members may want to visit business classes.

Team Member Observation Schedule

TEAM MEMBER NAME

	CLASS	TEACHER	LOCATION	TIME
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				

Interview Schedule

GROUP	LOCATION	TIME

Introduction to the SREB Classroom Notes Form

The purpose of the classroom visit is to determine, within a 10- to 15-minute snapshot in a classroom, the degree to which students are actively engaged in learning challenging content. Given the short window of the visit, this form must be brief, while noting the key characteristics of instruction that supports student achievement. Space is provided for running notes and for reflection on the quality of the learning environment following the classroom visit.

Many factors contribute to a well-managed and well-planned lesson. This form encourages the classroom visitor to look specifically for practices that support student achievement. In addition, the observer should describe several aspects of the classroom environment.

Please keep the following guidelines in mind when using the Classroom Notes Form:

- This form focuses on students' experiences in the classroom. It is a "moment in time" assessment of what is actually happening. This is not an evaluation of individual teachers. For example, there are no items related to teacher planning. Though it is important for teachers to plan lessons in advance, planning alone does not guarantee student learning. The teacher's ability to engage the students in learning is a more significant factor that can actually be observed in the classroom.

- This form describes the quality of the learning experience rather than the specific method used. This is not an assessment of particular teaching methods, although some methods such as cooperative learning or project-based learning may indeed lead to improved student achievement. For example, the form asks if students are engaged in substantive interaction about the content of the lesson. Students could be interacting in groups or in a well-managed discussion involving the whole class.

- The physical environment and the resources available in the classroom are viewed only as they impact student learning. Technological tools may be readily available in the classroom, but the observer should note how they are being used to enhance student learning.

- This form attempts to describe the quality of work in which students are engaged. It is more than an assessment of whether students are "on task." Observers should be concerned with the nature of the task and whether or not students are encouraged to think deeply about the content of the lesson. For instance, student reading should include evidence that the student understands the material.

- This form does not address all relevant data from the classroom. Some data may be difficult to obtain during a classroom visit; some issues may be better explored through questions during student and teacher interviews. For example, students should be asked whether or not they are aware of the standards for quality work and opportunities for extra help. Teachers should be asked about professional development opportunities and ways these opportunities have supported fundamental changes in classroom practice.

Further evidence of student experiences may be collected if the team member does not interfere with teaching and learning. For example, beyond the classroom events, the visitor can ask the teacher for samples of student work, a copy of the course syllabus, copies of recent assessments or copies of end-of-course exams. These offer further evidence of how the teacher engages students in learning.

Classroom Notes Form

I. General Info

TEACHER OBSERVED _____ TIME OBSERVED _____

SUBJECT _____ LEVEL OF CLASS _____

TAV TEAM MEMBER _____

II. Student Information (Number present)

___ Caucasian Females ___ African-American Females ___ Other Females

___ Caucasian Males ___ African-American Males ___ Other Males

III. Room Arrangement (Check characteristics if observed.)

☐ Desks/Tables in Rows ☐ Arrangement Changed during Lesson

☐ Desks/Tables in Clusters ☐ Students Isolated from Class

Teacher's Desk:

☐ Front ☐ Back ☐ Other

IV. Learning Environment

_____ Number of Computers

_____ Number in Use

_____ Type of Activity
(e.g., Drill, Simulation, Research)

Books ☐ Y ☐ N

Newspapers ☐ Y ☐ N

Magazines ☐ Y ☐ N

V. Examples of Quality Student Work

Displays of Student Work ☐ Y ☐ N

Quality and Content Appropriate to Subject and Grade ☐ Y ☐ N

Level ☐ Below Basic ☐ Basic ☐ Proficient ☐ Advanced

VI. Special Notes

Classroom observations provide a snapshot of what is happening at a particular time. The basic purpose of the classroom visit is to find out:

- the extent to which students are challenged;
- the extent to which students are engaged in learning;
- the extent to which the classroom is productively focused and managed; and
- the extent of differences between high- and low-achieving classes.

Classroom Practices

Rate each item by circling the extent to which each indicator is occurring. Detailed comments and examples are very important sources of evidence to support the technical assistance report.

4 = significant evidence 3 = some evidence 2 = little evidence 1 = not observed

Raising Expectations					**Comments/Examples:**
1. The teacher clearly communicates learning objectives, and students know what is expected.	4	3	2	1	
2. Students are prepared for class. A short warm-up assignment is posted, and class begins promptly.	4	3	2	1	
3. Students read for information, write and speak in more than one-word or one-sentence responses.	4	3	2	1	
4. There is a climate of mutual respect, effort and value of learning exhibited in the classroom.	4	3	2	1	
5. Disruptions to the learning environment are managed effectively.	4	3	2	1	
Engaging Instruction					
6. The learning activities are organized in a logical sequence with enough variety to meet different learning styles.	4	3	2	1	
7. Students share and defend their ideas and interact with others about the content to promote deeper understanding.	4	3	2	1	
8. Students are excited about the lesson and are involved in learning through discussing, researching, solving problems, and considering different viewpoints and perspectives.	4	3	2	1	
9. The teacher makes open-ended assignments that require students to do research, construct responses and/or defend ideas.	4	3	2	1	
Curricular Challenge					
10. Assignments are of appropriate quantity, quality and level of challenge.	4	3	2	1	
11. The teacher focuses on ensuring that students grasp the subject matter; i.e., checking for understanding, asking for evidence and asking students to explain.	4	3	2	1	
12. The teacher and students talk substantively about the content of the lesson in pairs, as teams or small groups, or as a class.	4	3	2	1	
13. Instruction includes the use of themes, real-world problems, issues, concepts or open-ended questions.	4	3	2	1	
14. Questioning patterns require all students to use higher-level skills such as comparisons, summaries, analysis and application.	4	3	2	1	
Connecting Across the Curriculum					
15. Career/technical, fine and related arts classes use reading and mathematics to connect with academic courses.	4	3	2	1	
16. Technology is integrated into classroom experiences in an appropriate manner that includes completion of meaningful assignments.	4	3	2	1	
17. Connections are provided between students' prior learning, the content of the lesson/assignment and other disciplines.	4	3	2	1	

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Tips for Effective Interviews

1. Be clear about the purpose of the visit. The goal is to get views on what the school has done, to define next steps and challenges, and to enable the people from the school to talk to each other.

2. Be prepared. Study the available school data and information. Develop an idea of what you want to learn about the school. Take 15 minutes to review the specific interview questions in the Team Member Guide and the general interview questions in the Rubric for Technical Assistance Visits. Decide which of these questions to ask and whether there are others you should ask that will help fill in any gaps.

3. Have one person ask the questions. Decide who that will be before you begin the interview. This can be determined during the team orientation the first afternoon. The team leader should always interview the students, the principal and central office personnel.

4. Avoid the trap of allowing one person to dominate the responses. Ask everyone in the room to respond to each question.

5. Restate the question when answers miss the point. For instance, you may not get an adequate answer to a probing question such as, "Why aren't your students performing well?" Don't move on to the next question. Instead, repeat what they have said to you in a different way: "Are you saying that all students' problems originate in themselves and their experiences outside school?"

6. Generate follow-up questions based on responses. For example, if an interviewee says, "I don't have time to give students extra help," you may wish to ask, "How can the school adjust your schedule to help you make time for extra help?"

7. Be prepared to confront challenges constructively. You may say to leaders, "As we look at the data, we might conclude that staff development follow-up is a problem. Other schools may have addressed it better. What can we do to help address the problem?"

8. Summarize the main ideas interviewees have shared with you and ask if there is anything that was omitted or that needs clarification.

9. Thank interviewees for their time and their commitment to raising student achievement.

10. Remember the contextual differences in interviews with students, teachers and school leaders. Relate this to the purpose of the interview and the questions that you ask.

Interview Schedule

The site coordinator should complete the "location" and "time" columns. The team leader should complete the "members" column.

Academic Teachers

GROUP | LOCATION | TIME

MEMBERS

Career/Technical Teachers

GROUP | LOCATION | TIME

MEMBERS

Student Representatives: Ninth - 11th Grades

GROUP | LOCATION | TIME

MEMBERS

Student Representatives: Senior Career/Technical Completers

GROUP | LOCATION | TIME

MEMBERS

Student Representatives: Senior Academic Majors

GROUP | LOCATION | TIME

MEMBERS

Guidance Counselors

GROUP LOCATION TIME

MEMBERS

School-level Administrators

GROUP LOCATION TIME

MEMBERS

Division-level Administrators

GROUP LOCATION TIME

MEMBERS

Parent/Community Representatives

GROUP LOCATION TIME

MEMBERS

Other:

GROUP LOCATION TIME

MEMBERS

Student Interview Form

SITE

Use this form as a guide to interview students at the *HSTW* site you are visiting.

1. How would you describe your high school to a friend?
2. In which class do you learn the most and why?
3. Quality learning is the result of considerable effort to do something exceedingly well — a paper, a project, a mathematical problem or performance in a school play. Give an example of quality learning you experienced in an academic or career/technical class and describe why you believe it to be quality work.
4. How do you know what you have to do to earn an A or a B in a course?
5. Are you allowed to redo your work until it meets standards? If yes, describe the process.
6. If you are performing below standards in a class, describe any form of extra help that is available to you. Is it required?
7. What major research paper did you complete in high school that took a great deal of time outside class? How often do you have this kind of assignment? What did you learn from the experience?
8. Have you been assigned an adviser or mentor? If yes, describe how that adviser or mentor works with you.
9. When did you develop a career plan? How often is it reviewed? How are your parents and teachers involved in the career-planning process?
10. What changes would you make in this school to get more students to achieve high-quality learning?

Comments/Additional Questions:

Ninth-grader Interview Form

SITE

Use this form as a guide to interview ninth-grade students at the *HSTW* site you are visiting if the school has a ninth-grade transition program or academy.

1. Do you believe you were prepared successfully to do high school work? Why or why not?
2. Describe your ninth-grade English and mathematics courses.
3. In which class do you learn the most and why?
4. How do you know what you have to do to earn an A or a B in a course?
5. If you are performing below standards in a class, describe any form of extra help that is available to you. Is it required?
6. Are you required to take a support class that focuses on study skills, note-taking and time-management skills? If so, describe.
7. Have you been assigned an adviser or mentor? If yes, describe how that adviser or mentor works with you.
8. When did you develop a career plan? How often is it reviewed? How are your parents and teachers involved in the career-planning process?
9. What changes would you make in this school to get more students to achieve high-quality learning?

Comments/Additional Questions:

Teacher Interview Form I: Academic Teachers

SITE

Use this form as a guide to interview teachers at the *HSTW* site you are visiting.
Note: If this is a first-year site, rephrase the questions to include future plans related to *HSTW*.

1. Describe how you are using *HSTW* to make improvements in teaching and learning.
2. How has your school gone about getting all faculty involved in *HSTW*?
3. Describe staff development at your school. How has staff development changed your instruction?
4. How does the principal engage all of the faculty in using data to evaluate the school's academic and career/technical programs? How are data used to identify gaps in achievement, curriculum and instruction?
5. Describe examples of students working hard in your class to demonstrate quality learning.
6. Describe how students get extra help if they are not meeting standards.
7. How have school and district leadership supported improvement efforts at the school?
8. What major challenges do you and your school continue to face in implementing the *HSTW* goals and key practices?

Comments/Additional Questions:

Teacher Interview Form II: Career/Technical Teachers

SITE

Use this form as a guide to interview career/technical teachers at the *HSTW* site you are visiting.

1. How do you teach and reinforce new workplace skills vital to high-performance workplaces, such as problem-solving, creativity, leadership, interpersonal skills, oral and written communication skills, and higher-order thinking skills? What have you done as a faculty to analyze the amount of time you spend on these skills? How do you assess these skills?
2. Does the career/technical program focus solely on entry-level skills, or does it provide students with a working knowledge of all aspects of an industry? Are students given the theoretical/academic foundation for upgrading their skills and adapting to new jobs? If so, explain.
3. How does your program measure career/technical achievement?
4. How do you help students become independent learners?
5. Is your program certified? Is it recognized by industry, professional or trade associations or state licensing agencies? Does it lead to credential opportunities? If not, how are you working toward certification?
6. How does the career/technical program support regional and state labor market needs?
7. Are students required to do projects? Describe some specific projects, especially those that are interdisciplinary/integrated or those that require students to do considerable work outside class, do research, write a paper, use mathematics, design and make a product, give an oral presentation, etc. How do students use technology to complete these projects?
8. Do business and industry representatives participate in curriculum planning? The design and implementation of work-based learning? Program improvement? Are work-based learning experiences tied to standards?
9. What major challenges do you and your school face in fully achieving *HSTW* goals and key practices? What strategies will you pursue to address these challenges?

Comments/Additional Questions:

Teacher Interview Form III: All Teachers

SITE

Use these questions to interview teachers during their planning periods.

English

1. Is the English curriculum benchmarked to state and Council for Basic Education (CBE) standards? (The CBE recommends that students read 25-30 books across the curriculum each year.)
2. How many books are students required to read each year?
3. Is there a book list representing selections from across the curriculum? (Ask for a copy.)
4. Are all students required to read during the summer?
5. Are all students required to write a research paper each year? (Ask for guidelines and rubrics.)
6. How much writing are students required to do daily? Weekly? Monthly?
7. Have common writing rubrics been developed?
8. How often do students do oral presentations?
9. Are there curriculum maps, pacing guides, common course outlines, syllabi, exams and scoring rubrics for the English department?
10. Have common end-of-course exams been developed?
11. Are teachers working together to review assignments, assessments and student work?

Mathematics

1. Is the mathematics curriculum benchmarked to state and National Council of Teachers of Mathematics (NCTM) standards?
2. Are students assigned mathematics projects and presentations?
3. Are there curriculum maps, pacing guides, common course outlines, syllabi, exams and scoring rubrics for the mathematics department?
4. Have common end-of-course exams been developed?
5. Are teachers working together to review assignments, assessments and student work?

Science

1. Is the science curriculum benchmarked to state and National Science Teachers Association (NSTA) standards?
2. How much time each week do students spend in the lab?
3. Are science projects required? (If so, get examples of assignment requirements, scoring rubrics, etc.)
4. Are students required to read, write and make presentations in science courses? (Get examples.)
5. Are there curriculum maps, pacing guides, common course outlines, syllabi, exams and scoring rubrics for the science department?
6. Have common end-of-course exams been developed?
7. Are teachers working together to review assignments, assessments and student work?

Social Studies

1. Is the social studies curriculum benchmarked to state, national and CBE standards (government, geography and history)? Does the curriculum include economics?
2. Are students expected to read from a variety of materials? Is there a reading list of recommended books/articles from which students are expected to read? How many books/ articles do students read per semester/year? (If there is a reading list, get a copy.)
3. Are there curriculum maps, pacing guides, common course outlines, syllabi, exams and scoring rubrics for the social studies department?
4. How much and how often are students expected to write?
5. Have common end-of-course exams been developed?
6. Are teachers working together to review assignments, assessments and student work?

Career/Technical

Note: This interview may be held with either the department chair for career/technical education or the district's career/technical director.

1. Are program goals, contents and assessments aligned with state and national academic and skill standards?
2. Are the programs technologically current? Do learners have opportunities to use state-of-the-art technology within their industry and to understand the impact of technological advances within their chosen field?

3. Are the programs certified? Are the programs recognized by industry, professional/trade associations or state licensing committees? Is the teacher industry-certified? Is there a process in place for recertification? Do the programs lead to credential opportunities?
4. Do the career/technical programs focus solely on entry-level skills, or do the programs provide students with a working knowledge of all aspects of an industry?
5. Are students given the theoretical/academic foundation for upgrading their skills and adapting to new jobs?
6. Have the teachers developed course syllabi (not just a list of competencies)? (Ask for copies.)
7. How does the career/technical program develop new workplace skills important to high-performance workplaces? Examples include problem-solving, creativity, interpersonal skills, leadership, higher-order thinking skills and teamwork.
8. How does the program support regional or state labor market needs?
9. To what extent do the classes focus on making students independent learners rather than teacher-dependent learners? Are students working on open-ended solutions to real-world problems?
10. What percentage of teachers have clear and demanding standards?
11. Are students required to do projects? Describe specific projects, especially those that are interdisciplinary/integrated or that require considerable work outside of class and involve research. Are projects designed to be open-ended with clear criteria to be met?
12. Are strong visible ties to business and industry evident? Does collaboration result in articulated and well-developed career pathways at the secondary and postsecondary levels? (Get copies of articulation agreements.)
13. Do business and industry representatives participate in curriculum planning, the design and implementation of work-based learning, and/or program improvement?
14. How are work-based learning experiences linked to standards? Are they an integral part of classroom instruction? Does the teacher regularly meet with employers to discuss course objectives, scope and sequence? Is there an orientation or job training session with employers? Do employers understand the high school academic and technical requirements as well as work-based course objectives?
15. Do employers require students to show report cards and attendance reports? Does the school report student absences to employers? Do employers support the school with a "no-pass, no-work" employment requirement? Do employers give incentives for superior performance? Are employers informed of special events that may affect employee scheduling, such as semester finals or state assessments?
16. How do the programs measure career/technical achievement? What skills are measured? How is the evidence collected and supported? Is the data used to support program improvement?
17. Review career/technical teacher assignments. Do they require students to read and use mathematics and computer science concepts? Are the reading and mathematics skills required above the basic level?
18. Have any of the programs been recognized for outstanding performance or contributions to the field at the local, state and/or national levels? If so, describe.

Comments/Additional Questions:

Counselor Interview Form

SITE

Use this form to interview counselors at the *HSTW* site you are visiting.
Note: If this is a first-year site, rephrase the questions to include future plans related to *HSTW*.

1. Describe how you are using *HSTW* to improve the guidance and advisement process. What specific changes have occurred in guidance and advisement as a result?
2. Do all children have adult advisers who stay with them through all four years of high school?
3. How do you involve parents in the guidance and advisement process? Are parents required to meet with you and/or the child's adviser before class registration?
4. How does the career-planning process address the student's career aspirations?
5. How do you use data to help plan a student's program of study?
6. How do you help students see the relationship between the courses they take and their future plans?
7. What major challenges do you and your school face in fully achieving the *HSTW* goals and key practices?

Comments/Additional Questions:

School Administrator Interview Form

SITE

Use this form to interview the school principal and *HSTW* site coordinator.
Note: If this is a first-year site, rephrase the questions to include future plans related to *HSTW*.

1. How do you support improvement efforts at this school?
2. How do you use data to evaluate the school's academic and career/technical programs?
3. Describe how you are involved in improving teaching and learning.
4. How have you involved the whole faculty in using the Technical Assistance (TA) report for school improvement?
5. How has staff development changed instruction? Describe how you follow up on staff development to see if strategies have been translated into changes in instruction.
6. How do you provide time for teachers to understand different kinds of data? How are data used to evaluate the school's academic and technical programs?
7. Do you use faculty-student groups/teams to address individual components of the school improvement plan and other issues related to curriculum and instruction? If so, describe the process and outcomes.
8. What major challenges do you and the school face in fully achieving the *HSTW* goals and key practices?

Comments/Additional Questions:

System Leadership Interview Form

SITE

Use this form to interview the superintendent and system leaders at the *HSTW* site.
Note: If this is a first-year site, rephrase the questions to include future plans related to *HSTW*.

1. How do you and the board support improvement efforts at the school?
2. What further changes would you like to see implemented?
3. How have you and the board of education supported the principal and teachers in making these changes?
4. How have you encouraged the principal and teachers to create an organizational structure that involves parents and community leaders in team planning and program implementation?
5. What major challenges do you and your school continue to face in fully achieving the *HSTW* goals and key practices?

Comments/Additional Questions:

Business/Industry Representative Interview Form

SITE

Use this form to interview business and industry leaders involved with the site.

1. How are you helping teachers and administrators set higher standards for students?
2. How can your company demonstrate to students that it values achievement and cares about learning?
3. How can you become more involved in setting standards for school attendance and achievement?
4. How does your company recognize high achievement by students?
5. Does your company request school information such as attendance records, transcripts and student portfolios as criteria for hiring students? If so, explain.
6. Does your company limit the number of hours students can work during the school week or school year?
7. Do you base promotions and raises in part on the caliber of learning that a student demonstrates at school?
8. How can the school better prepare students who are working in your business?
9. Is the work experience at your business a learning experience? For example, do students learn various aspects of running a business? Do you use job rotation and have students complete progressively more complex tasks? Do students learn to make choices by learning more about different occupations?
10. Do you provide mentoring and tutoring opportunities?
11. Have you had any opportunities to: (Provide specific examples.)
    - Provide information and activities to prepare students for challenging careers?
    - Partner with schools and teachers to improve students' academic and technical knowledge?
    - Provide educators, students and parents with specific information about the preparation needed to advance in the industry?
    - Provide students with quality workplace learning opportunities?

Comments/Additional Questions:

Parent Interview Form

SITE

Use this form to interview parents at the *HSTW* site.

1. What evidence do you have that your child completed high-quality work while in high school?
2. How have you helped your child make a plan for the future?
3. Has your child received information about high school graduation requirements and further study or work?
4. Is information on student progress reported to parents in a timely manner? Is it specific to groups within the school, e.g. racial/ethnic, socioeconomic, gender, etc.? What evidence is provided that students from various racial and socioeconomic groups are progressing at similar rates?
5. Does the school emphasize a few important school rules and enforce them consistently and fairly for all students?
6. Do adults in this school communicate high expectations for all students? How?
7. How frequent is communication among school staff, parents and teachers?
8. Do students who are performing poorly receive extra time and help to achieve at higher levels? How?
9. Is your child required to read outside of class? How much? Give examples.
10. How has the school changed what is taught, how teachers teach and how student performance is measured to better prepare all students for high school?

Comments/Additional Questions:

Evidence Worksheets for the Technical Assistance Team

Does the school have high expectations and provide a structured system of extra help?

Possible Indicators:

- The school has a clear mission statement based on improving student achievement.
- Graduation requirements have been raised.
- Low-level courses have been eliminated, and multiple levels within a grade have been decreased or completely eliminated.
- Eighth-graders take pre-algebra or Algebra I and an end-of-course exam.
- The following high school courses are required for all students: four college-prep English/language arts; four mathematics; three lab-based science; and a four-course sequence in an academic or career/technical concentration.
- Students are required to complete a senior project.
- Increases in student achievement on the *HSTW*, state and other assessments are evident.
- Attendance rates have increased.
- Dropout rates have decreased.
- Scores on *HSTW* and state assessment, the SAT, the ACT, etc., have increased.
- Increases in career/technical achievement have occurred.
- Discipline referrals and tardies have decreased.
- The school provides a structured system of extra help, such as re-teach programs, content-area study centers, and double-doses of mathematics and English for students who perform below standard.
- Students who earn a grade of C or lower are required to seek extra help (before and after school as well as during the school day, if provided).
- Students have relevant homework that includes projects done outside of class.
- School and classroom practices reflect higher expectations.
- Students are required to complete a senior project.
- Students are required to read books and articles to complete projects in all classes.
- All students complete the *HSTW*-recommended curriculum.

Does the school have high expectations and provide a structured system of extra help?

List three specific examples from interviews, observations and data analysis.

1.

2.

3.

List three specific challenges.

1.

2.

3.

What changes have been made to academic and career/technical curricula?

Possible Indicators

- Career/technical programs are taught to industry standards that lead to certification.
- Career/technical teachers assign students unfamiliar problems and projects that require the application of academic knowledge and skills.
- Career/technical courses emphasize skills in mathematics, science, reading and writing.
- Career/technical courses require reasoning, problem-solving, planning, researching, organizing and presenting information.
- Work-site learning rotates students through different aspects of the business or industry with an on-site mentor. Work-based learning experiences are tied to standards.
- Programs provide students with a working knowledge of all aspects of the industry.
- Technology is current in all programs.
- Students are required to take an industry or end-of-course technical exam, and results are used for program improvement.
- New courses have been added, both in academic and career/technical areas, such as dual-credit courses and Advanced Placement (AP) courses.
- Academic courses are aligned to state and national standards.
- Pacing guides that include readiness indicators have been developed.
- Every teacher has detailed course syllabi and shares them with students and parents.
- Common rubrics and end-of-course exams have been developed.
- Students have access to and enroll in dual-credit courses.
- Articulation agreements are in place and students take advantage of them.
- A high percentage of courses are taught to the college-preparatory level.
- How many AP courses are offered? How many students are enrolled in each AP course? What were the results from previous years' AP exams?
- Are distance-learning opportunities available? How many students are enrolled? In which courses are they enrolled?

What changes have been made to academic and career/technical curricula?

List three specific examples from interviews, observations and data analysis.

1.

2.

3.

List three specific challenges.

1.

2.

3.

Does the school engage all students in challenging, student-centered instruction?

Possible Indicators

- Cooperative learning, project-based learning, Socratic questioning, debates, performance events
- Authentic, real-world applications of learning
- Using technology to complete meaningful assignments
- Research projects including oral and written presentations
- Using science equipment and graphing calculators
- Understanding the standards for A, B and C grades
- On-the job learning, service learning and internships
- Authentic assessment strategies, such as portfolios, open-response questions, performance events and projects

List three specific examples from interviews, observations and data analysis.

1.

2.

3.

List three specific challenges.

1.

2.

3.

Does the guidance/advisement system involve parents and teachers?

Possible Indicators

- Advisers or adult mentors maintain contact over several years of schooling.
- Teachers are trained for an adviser/advisee program.
- Students have five-year plans in middle and high school.
- The adviser, parent(s) and student review transcripts each year to ensure that the student is taking higher-level courses in a planned sequence.
- Students learn about careers and postsecondary opportunities through real-life experiences.
- Students are encouraged to take challenging courses, especially in grade 12.
- Parent-student-teacher conferences are required to plan schedules.
- Students receive information about postsecondary education.
- Representatives from business and industry make presentations at designated times (open house, PTA/PTO meetings, etc.) on changes in the world outside the classroom.

List three specific examples from interviews, observations and data analysis.

1.

2.

3.

List three specific challenges.

1.

2.

3.

Do teachers have the support of the school and the district?

Possible Indicators

- There are mentoring programs for new teachers.
- Professional development is focused on using data to improve student achievement.
- The principals participate in professional development.
- Teachers have common planning time.
- Study teams have been organized to address individual components of the school improvement plan.
- Data is used to initiate and continue improvement in school and classroom practices and student achievement.
- The administration acquires and uses resources wisely.
- Administrators and teachers receive support from the central office and from community and parent leaders for the school improvement agenda.
- The school uses and organizes time in innovative ways to meet the goals and objectives of school improvement.
- School leaders and teachers continuously learn and seek out colleagues who keep them abreast of new research and proven practices.

List three specific examples from interviews, observations and data analysis.

1.

2.

3.

List three specific challenges.

1.

2.

3.

Does the school have a transition program?

- Teachers from feeder schools meet to discuss curriculum.
- Ninth-grade transition programs, such as summer bridge and gear-up, are in place.
- At-risk students are identified early.
- Students receive double-doses of English/language arts and mathematics in ninth grade.
- A ninth-grade support class is in place.
- Parent-student orientation programs describe what is required for success in high school, college, the military and careers.
- The senior year is characterized by transition programs such as ACT/SAT preparation, full schedules for seniors and college placement tests in grade 12.
- Several businesses give examples of their employment exams to juniors. Students who do not do well on the exam use the senior year to upgrade their skills.

List three specific examples from interviews, observations and data analysis.

1.

2.

3.

List three specific challenges.

1.

2.

3.

12th-grade *Reading* Proficiency Levels

Basic

Twelfth-graders performing at the basic level demonstrate a general understanding of grade-level texts. They locate specific information and identify the main ideas and the purpose. Students make simple connections between ideas within a text and provide general evaluations of the meaning or purpose. They identify interpretations and text-based support for those interpretations.

Proficient

In addition to basic skills and knowledge, twelfth-graders performing at the proficient level demonstrate understanding of grade-level texts. They understand explicitly stated ideas, compare and contrast information in different parts of a text, determine the relative importance of different ideas, and provide overall interpretations of a text's meaning. Proficient readers recognize connections between ideas in the text, with other texts and with real-life experiences. They recognize general organizational features and can extend ideas in the text by making inferences such as predictions and conclusions.

Advanced

In addition to basic and proficient skills and knowledge, twelfth-graders performing at the advanced level demonstrate a thorough understanding of grade-level texts. They integrate text ideas, explain causal relationships, and evaluate complex information and organizational features. Students analyze text ideas to provide specific and extensive support for evaluations and interpretations of the text. They evaluate an author's opinion and explain how that opinion is conveyed. They make connections between complex, deeply embedded ideas within the text, with other texts, and with real-world experiences. They can interpret and explain specialized terminology.

12th-grade *Mathematics* Proficiency Levels

Basic

Students performing at the basic level possess an understanding of simple mathematical concepts and are able to perform basic arithmetic operations. They are beginning to utilize elementary reasoning techniques to solve straightforward problems. However, these students are able to process only a limited amount of mathematical information in a problem at one time and are rarely able to employ more complex solution methods if the problem requires them.

Students are able to use their knowledge of procedures and elementary concepts to solve one- or two-step word problems. They can perform simple measurement tasks and can work with metric units of measure. They have an understanding of the properties of triangles and quadrilaterals and can identify lines of symmetry on geometric figures. These students can visualize geometric figures in two and three dimensions and may be able to reason spatially using properties of those figures. Students at the basic level can read and interpret graphs, compute with data from tables and graphs, and answer simple conditional probability questions. They have acquired a procedural understanding of algebra; they can complete tasks such as combining like algebraic terms, solving simple linear equations and inequalities, and locating points on a grid. Students can construct simple algebraic representations and extend numerical patterns.

Proficient

In addition to basic skills and knowledge, students performing at the proficient level are beginning to use analysis techniques and more sophisticated reasoning skills in their solutions to mathematics problems. They can solve problems that require the integration of more than one mathematical idea or strategy and check their answers for reasonableness. These students may demonstrate an emerging understanding of mathematics as a process.

Students are able to use their knowledge of number theory to work with prime numbers as well as even and odd integers. They can approximate square roots and can compute with fractions and percents (including percents greater than 100) in several contexts. Students can work with scale drawings and can successfully solve problems involving non-routine applications of area and employ more sophisticated spatial reasoning techniques. They are able to identify a correct statistical sampling method and can use a given probability to determine missing data in a question. In algebra, students have a solid understanding of linear functions and are beginning to work with nonlinear functions, such as exponential relationships. They are able to solve a system of two linear equations using simple elimination, relate integers to real-world situations, and work with distance and slope in a coordinate system. Students generally have a better understanding of the underlying concepts of linear functions than the underlying concepts of nonlinear functions. They are more likely to draw on their knowledge of procedures when working with nonlinear functions and may experience difficulty in applying concepts involving nonlinear functions in problems.

Advanced

In addition to basic and proficient skills and knowledge, students performing at the advanced level have generally acquired a certain level of sophistication in being able to understand and utilize the notation, reasoning and processes of mathematics. They are beginning to make important connections within mathematics and between mathematics and other areas, to work with non-routine applications in problem settings, and to make predictions. These students regularly evaluate their work and answers for reasonableness as their approach to the study of mathematics becomes embedded in sound processes and practices.

Students can readily recall and utilize appropriate formulas in a variety of problems, including the formula for circumference, the Pythagorean theorem and trigonometric ratios. Students at the advanced level can solve a system of two linear equations using methods beyond one-step elimination, work with multiple representations in algebra, and possess a strong conceptual understanding of fundamental algebraic concepts. These students are able to work with non-routine problems across various content areas, such as solving problems about piecewise functions, cross-sections of three-dimensional figures, mathematical sequences and precision/tolerance.

12th-grade *Science* Proficiency Levels

Basic

Students have some elementary factual and conceptual knowledge of various areas of science. Skills include reading and interpreting a graph or diagram as well as estimating distance on a map using a scale. Students recognize the elements of the scientific method, such as appropriate experimental conditions, and understand that scientific theory is founded on experimental observations and predictions that are testable.

Students are familiar with basic concepts and terms. For example, in life science, they know fundamental biological terms; can identify biological structures in a diagram; can recognize basic functions of structures in living systems; and can recognize evidence of change over time. In physical science, students know basic terminology related to time and matter and recognize that symbols and formulas represent chemical substances. They can identify principles of physical science, such as the laws of motion, and recognize implications of concepts such as density and reflection. In earth science, students recognize geological formations and can describe basic processes taking place within Earth's systems, such as the water cycle.

Proficient

In addition to basic skills and knowledge, students relate and apply concepts and are more skilled in scientific experiments. Students can design a scientific investigation. They know how to evaluate the appropriateness of an experimental design and understand that the credibility of experimental results depends on their reproducibility. Students also can interpret a graph and explain the results. They are able to recognize the environmental impact of humans on nature. Students can use basic mathematical skills to solve a problem and can interpret a topographical map.

Students know the relationship between structure and function in organisms, recognize the varying degrees of complexity in organisms, and understand that a greater level of complexity causes an increase in specialization. Students know how the history of life on Earth is demonstrated. They can describe the fundamental principles of physical science and apply these concepts, such as thermal expansion, to simple practical situations. Students recognize the difference between physical and chemical changes in nature.

Advanced

In addition to basic and proficient skills and knowledge, students performing at the advanced level understand more complex concepts and use their knowledge in complex practical situations. Students can perform specific skills such as balancing a chemical equation and analyzing a graph to solve a conceptually advanced problem.

Students know scientific terminology related to increasingly complex concepts and may be able to provide a complete explanation of processes that take place within Earth's systems, such as the water cycle. Students know the basic structure of the universe and are able to identify the instruments used to make astronomical determinations. They understand the particulate nature of matter and the relationships among these particles, and they demonstrate an understanding of the fundamental principles of physical science, as well as the ability to apply them. In life science, students know the hierarchy of classification and understand physiological processes within living systems, such as cell division and cellular respiration. When presented with a novel situation, these students can apply prior knowledge to understand it.

Glossary of Terms

The following terms are used in *HSTW*. In some cases, terms may not be identical to the most widely used definitions; it is important to understand these terms as they are used by *High Schools That Work*.

Academic Concentration — A series of courses that provide complex, high-level content in mathematics, science, language arts and social studies.

Academic Teachers — Teachers of mathematics, science, language arts and social studies.

Action Plan — A school or school district plan developed by a committee of teachers, counselors and administrators for implementing a program of integrated career/technical and academic education at the local level.

Applied Courses — Courses in which teachers use principles, projects and issues embedded in a broad field of technical studies to help students understand major academic concepts and processes.

Applied or Contextual Learning — Pedagogy that enables students to connect essential concepts and process skills from the academic curriculum to authentic problems, projects or issues that have value to them in a broad field of career/technical studies.

Academic Competencies — Knowledge and skills in mathematics, science and language arts.

Blended/Career Concentration — Four credits in college-preparatory English; three credits in mathematics, to include Algebra I, Algebra II, geometry, and pre-calculus or a higher-level mathematics course; four credits in lab- and inquiry-based science to include a college-prep-level physical science, biology, and at least two courses selected from chemistry, physics, applied physics or anatomy and physiology; three credits in college-preparatory social studies; four credits in a concentration; and two credits in related electives.

Career-bound Students — All students are career-bound. Most technical assistance visits focus on students who are pursuing studies in a career major. These students may plan to work, attend a two-year community or technical college, participate in an apprenticeship program or the military, or attend a four-year college or university after high school graduation.

Career/Technical Completer — A student who completes at least four credits in an approved career/technical area and takes four English, three mathematics and three science courses. At least two courses in mathematics and science should be equivalent to college-preparatory-level content.

Career/Technical Studies — A course sequence that provides challenging content and assignments in a career/technical field of study requiring students to use technical concepts and procedures as well as concepts from the academic curriculum to complete complex projects representing what workers would be expected to do in a broad career field.

College-prep Studies — A sequence of courses in mathematics, laboratory sciences and language arts that satisfies public, four-year college or university admissions requirements.

Consortium — The Southern Regional Education Board (SREB) State Career/Technical Education Consortium is a partnership of states, school systems and school sites in 23 states, united in an effort to raise the achievement of career-bound high school students.

Consortium Goals — To increase the mathematics, science and communication achievement of students and to integrate the basic content of traditional college-prep studies — English, mathematics and science — with career/technical studies by creating conditions that support school principals and faculties in carrying out certain key practices.

Cooperative Learning — Students work as teams to accomplish learning objectives. Group goals and individual accountability are the key practices. Students receive individual and group grades.

Curriculum Guide — A guide for each content area made up of state standards by grade level and content. It includes goals for the course, activities and resources.

Four-year Education Plan — A specifically designed sequence of courses for a student during his or her four years of high school.

General Studies/General Track — A collection of high school courses that do not satisfy requirements for admission to a public, four-year college/university or entry into a career field.

High-level Courses or Content — Courses with high content standards equal to those in college-preparatory curriculum, but taught in ways that motivate students to meet the standards. Instructional techniques include hands-on instruction; applied and contextual learning; cooperative learning; and other student-centered instructional methods, such as project-based learning.

***HSTW* Site** — A participating school or group of schools in *High Schools That Work*.

Key Conditions — A set of conditions created by system leaders to accelerate student achievement.

Key Practices — A framework that enables schools to focus school and classroom practices on improving the quality of learning for all students, particularly those students who will most likely go to work or enter a community or technical college, the military, or a four-year institution upon high school completion.

Low-level Courses — Courses that lack the high standards and content of the college-preparatory curriculum in language arts, mathematics, science and social studies. They are usually taught in a repetitive, drill, memory-recall format. They do not develop high-level thinking and intellectual skills. Examples include basic/general mathematics, basic/general English and general science courses.

NAEP — National Assessment of Educational Progress, the assessment used by *HSTW* to test student achievement in mathematics, science and reading. The assessment includes a questionnaire on students' perceptions about their high school experiences.

Occupational Field — Career/technical, technical or career field of study.

Pacing Guide — A guide that outlines when state standards, core content and concepts are taught, organized by grade level and content area. The guide also includes the suggested amount of time that is required to teach each standard.

Program of Study — A sequence of required courses and a range of related courses necessary for providing skills and knowledge essential for further study in a particular career or academic field.

Secondary Teacher Survey — A survey of administrators, career/technical and academic teachers, and counselors, administered the same year as the *HSTW* assessment. The teacher survey report reveals perceptions regarding the preparation of school staff essential for making changes in curriculum and instructional practices and suggests needed staff development.

SREB — The Southern Regional Education Board.

Staff Development — Training for teachers, counselors and/or administrators.

Student Follow-up Survey — A study done on the same cohort of students who took the *HSTW* assessment. The survey is administered one year after graduation from high school. The purpose of the student follow-up survey is to determine students' perceptions of the usefulness of their academic preparation.

Tech Prep — A structured high school curriculum: four credits in college-preparatory English; three credits in mathematics, to include Algebra I, Algebra II, geometry, and pre-calculus or a higher-level mathematics course; four credits in lab- and inquiry-based science to include a college-prep-level physical science, biology, and at least two courses selected from chemistry, physics, applied physics, or anatomy and physiology; three credits in college-preparatory social studies; four credits in a concentration; and two credits in related electives.

Southern Regional Education Board Goals for Education

1. All children are ready for the first grade.
2. Achievement in the early grades for all groups of students exceeds national averages and performance gaps are closed.
3. Achievement in the middle grades for all groups of students exceeds national averages and performance gaps are closed.
4. All young adults have a high school diploma — or, if not, pass the GED tests.
5. All recent high school graduates have solid academic preparation and are ready for postsecondary education and a career.
6. Adults who are not high school graduates participate in literacy and job-skills training and further education.
7. The percentage of adults who earn postsecondary degrees or technical certificates exceeds national averages.
8. Every school has higher student performance and meets state academic standards for all students each year.
9. Every school has leadership that results in improved student performance — and leadership begins with an effective school principal.
10. Every student is taught by qualified teachers.
11. The quality of colleges and universities is regularly assessed and funding is targeted to quality, efficiency and state needs.
12. The state places a high priority on an education system of schools, colleges and universities that is accountable.

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